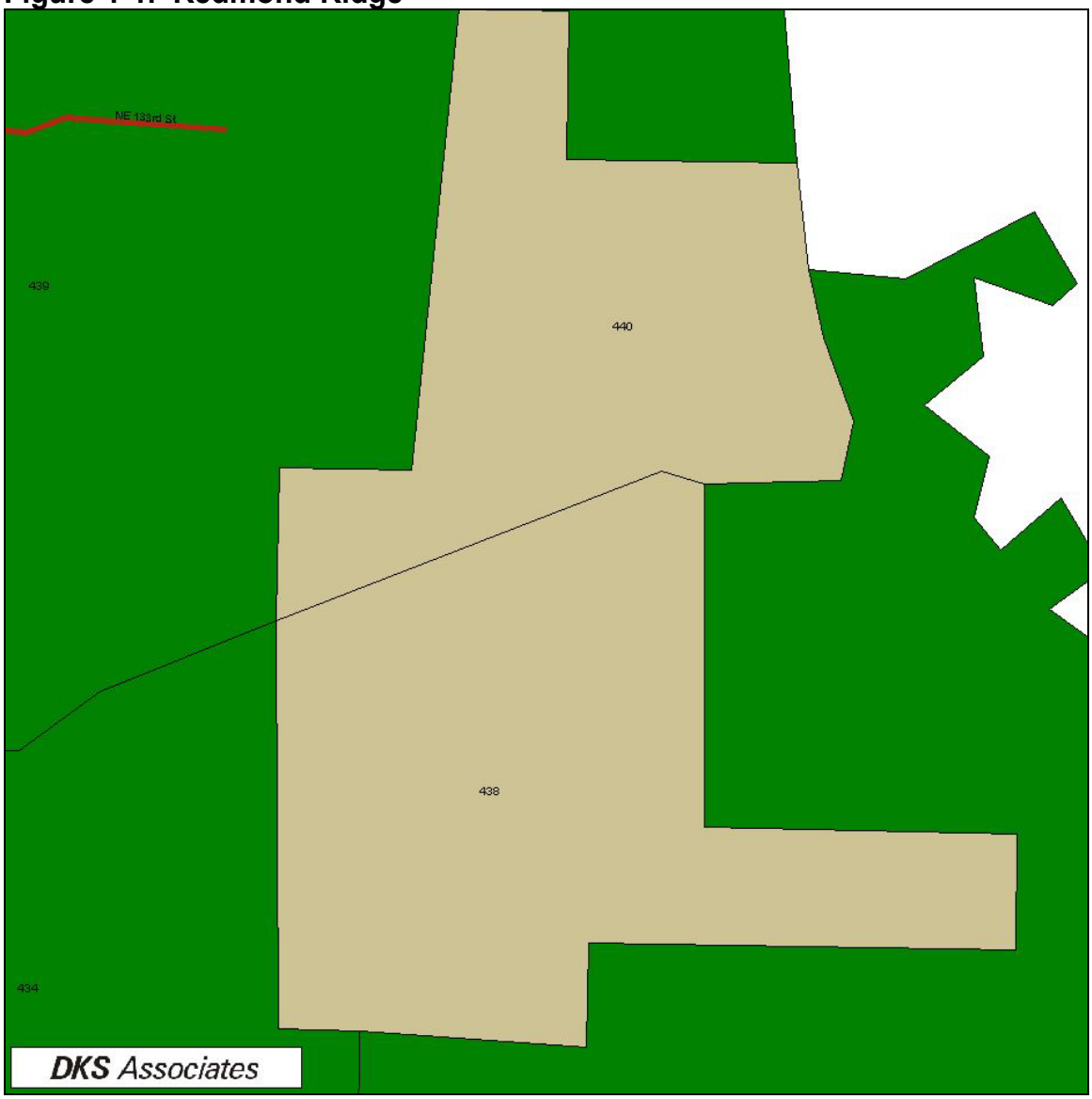
Redmond Ridge

1.0 Setting and Physical Characteristics

1.1 Location

Redmond Ridge is situated in a largely rural part of King County east of Seattle, Bellevue, Kirkland and Redmond. The case study area boundaries are illustrated in Figure 1-1.

Figure 1-1. Redmond Ridge



1.2 Land Use Character and Mix

The development in the area will drastically change the population and employment dynamics of the formerly rural area. There are two proposed developments. Redmond Ridge, which will contain housing, employment and commercial uses, is located south of Novelty Hill Road, while Trilogy, the parcel north of Novelty Hill Road, is built on a golf course and is age restricted (55 years old and up only).

The current concurrency application for Redmond Ridge and Blakely Ridge calls for 8,200 residents (based on 3050 households), 450 new retail jobs, and 3750 office jobs. For new applications in the panhandle area, the City estimates that the population at build-out will be 1,660 (based on 800 households), with no new employment and 12 soccer fields.

1.3 Access to Freeways and State Facilities

The closest state highways to Redmond Ridge/Trilogy are SR 520 and SR 202, neither of which run through the case study area. To travel on either SR 202 or SR 520, users would first have to travel west on NE Novelty Hill Road.

1.4 Roadway Network

The main road in the case study area is NE Novelty Hill Road, which serves all destinations outside the study area. All other roads within the two developments lead to Novelty Hill Road.

1.5 Transit Services

The existing and future transit service levels are discussed in the following sections.

1.5.1 Existing Transit Service

Currently, there is only limited transit service provided to the Redmond Ridge/Trilogy developments. The one route that does serve the area (Route 929) travels between Redmond and North Bend three times a day (one morning, one mid-day and one evening route in each direction).

As a condition of development approval, the developer was required to provide internal transit service upon the occupancy of the 500th dwelling unit. When transit service does begin for the Redmond Ridge/Trilogy developments, it will most likely be split into internal service provided by the developers and external service provided by King County Metro. The internal service will begin as an on-call service provided between established hours of operation. As ridership increases, the service could go to a fixed route and schedule.

There is currently no funding available for King County Metro to provide an external transit route serving the Redmond Ridge/Trilogy developments. The Redmond Ridge/Trilogy developers hope that when they begin their shuttle service, then King County Metro will alter their route to serve the Park and Ride lot on the development to facilitate transfers from the internal shuttle service.

1.5.2 Forecast Transit Service for 2030

The PSRC/Trans-Lake model was used to forecast the number of transit routes in the case study area for both the base and future conditions. Table 1-1 lists the number of routes by type (rail, ferry, high frequency bus service, and low frequency bus service), while Table 1-2 lists the frequency of service for each transit type.

The transit forecast is expected to increase slightly with one more bus per hour in the AM peak.

Table 1-1. Number of Routes

Time Period	Year	Rail	Ferry	High Bus	Low Bus	Total
AM Peak	2000				1	**1**
	2030				1	**1**
Mid-Day	2000				1	**1**
	2030				1	**1**

Table 1-2. Frequency of Service (buses per hour)

Time Period	Year	Rail	Ferry	High Bus	Low Bus	Total
AM Peak	2000				1	**1**
	2030				2	**2**
Mid-Day	2000				0	**0**
	2030				2	**2**

1.6 Parking Supply, Availability and Price

As the level of development is still relatively minimal, no survey of parking was completed. The future parking supply is based on existing zoning regulations.

Table 1-3. Parking Supply and Demand by Type

	Parking Type			
	Retail	Office	Other	Total
2001 Supply	Parking was not surveyed			
2001 Demand				
2001 D/S Ratio				
2030 Supply				**3,303**
2030 Demand				**2,317**
2030 D/S Ratio				**0.70**

When collecting parking costs, the PSRC/Trans-Lake baseline model assumes a relatively high parking cost in many parts of the region. Then, in the implementation of the model, the parking costs are lowered for many users to reflect that many users don't pay for the full price of parking. In the implementation of TEEM, the forecast parking costs were assumed to be one-half of the baseline PSRC/Trans-Lake model to account for people whose parking costs are subsidized. Due to the nature of the area (Rural) the model predicts that free parking will continue into the future, as illustrated in Table 1-4.

Table 1-4. Average Parking Costs

	Parking Costs	
	2000	2030
Drive Alone	$0.00	$0.00
Carpool	$0.00	$0.00
Vanpool	$0.00	$0.00

1.7 Pedestrian and Bicycle Facilities

Despite the fact that the Redmond Ridge/Trilogy developments are being built to be pedestrian and bicyclist-friendly, there are few opportunities for residents to use non-motorized transportation for purposes other than recreation. Although there is an extensive trail network, and a complete sidewalk network exists, trail access to destinations outside of the development will probably be limited, and within the development, distances between destinations are, in most cases, greater than most people would be willing to walk. Residents of the Trilogy (55+) development, on the north side of Novelty Hill Road, would have to cross that 4-lane road in order to get to any of the commercial or employment areas located in Redmond Ridge.

2.0 Population and Employment Characteristics

Population and employment data for the Redmond Ridge area are discussed below.

2.1 Population

The size and population for both 2000 and 2030 of the case study area is given in Table 2-1. The population is expected to increase tremendously (over 10 times) over the next thirty years. Almost all of this growth is expected to occur at the two developments.

Table 2-1. Background Model Information

	2000	2030
Size (sq. miles)	4.45	
Population	852	2,651

2.2 Employment

The number of employees in the study area as of 2000 was extremely low (5 employees). This number is expected to increase to 4200 employees in the future with the employees fairly well distributed between large and small employers (See Table 2-2 and Table 2-3).

Table 2-2. Employment by Type

	Model Employment	
	2000	2030
Retail	0	450
Office	0	3,750
Other	5	0
Total	**5**	**4,200**

Table 2-3. Employee Data by Size of Employer

	Number of Employees				Grand Total
	0-49	50-99	100-499	500+	
2000	0	5	0	0	5
2030	1,450	601	1,001	1,148	4,200

2.3 Characteristics by Transportation Analysis Zone (TAZ)

Table 2-4 lists the transit level of service definitions that were used for each TAZ, while Table 2-5 illustrates the land use characterizations for the Redmond Ridge area. The transit service is forecast to remain very low. The only characteristic that is expected to change is that the mixed-use for one zone is expected to go from low to medium. Table 2-6 gives the population, employment and trips by local area TAZ for the Redmond Ridge area. The summary of these characteristics was described in earlier sections. The PSRC/Trans-Lake model does not forecast much growth in transit service to the Redmond Ridge area as illustrated in Table 2-7.

Table 2-4. Transit Level of Service Definitions

Transit Service	Definition
High 1	At least one (1) rail route or five (5) or more high frequency routes
High 2	Four (4) high frequency routes or at least fifteen (15) total routes
Medium 1	Three (3) high frequency routes or at least ten (10) total routes
Medium 2	Two (2) high frequency routes or at least five (5) total routes
Low 1	At least two (2) total routes
Low 2	Less than two (2) total routes

Table 2-5. Land Use Characterizations by Local Area TAZ

	Transit Service		Mixed-Use		Density	
TAZ	2000	2030	2000	2030	2000	2030
438	Low 2	Low 2	Low	Medium	Low	Low
440	Low 2	Low 2	Low	Low	Low	Low

Table 2-6. Population, Employment and Trips by Local Area TAZ

		Population and Employment						Home Based Work Person Trips			
	Area	Population		Retail		Other		Productions		Attractions	
TAZ	sq. miles	2000	2030	2000	2030	2000	2030	2000	2030	2000	2030
438	2.590	310	1,882	0	225	5	1,875	750	2,126	266	541
440	1.857	542	769	0	225	0	1,875	506	781	242	342

Table 2-7. Population Employment by Transit Service

		Transit Service Level						Total
		High 1	High 2	Medium 1	Medium 2	Low 1	Low 2	
Transit Service	2000 Base	0	0	0	0	0	2	2
	2030 Base	0	0	0	0	0	2	2
Population	2000 Base	0	0	0	0	0	852	852
	2030 Base	0	0	0	0	0	2,651	2,651
Total Employment	2000 Base	0	0	0	0	0	5	5
	2030 Base	0	0	0	0	0	4,200	4,200

3.0 Travel Behavior Inventory

3.1 Person and Vehicle Trips

The person and vehicle trips for study area employees and residents are illustrated in Table 3-1. The tremendous growth expected in the Redmond Ridge area over the next thirty years translates into nearly ten times an many vehicle trips for both study area employees and employed residents.

Table 3-1. Daily Commute Trips

	Person Trips		Vehicle Trips	
	2000	2030	2000	2030
Study Area Employee	508	883	480	765
Employed Residents	1,256	2,907	1,131	2,219

3.2 Vehicle Miles Traveled

The vehicle miles traveled to work by Redmond Ridge employees was estimated based on the distance that employees located at similar locations traveled. These values are illustrated in Table 3-2.

Table 3-2. Average Vehicle Miles Traveled to Work by Mode

Mode	Vehicle Miles Traveled to Work
Drive Alone	15
Carpool	19
Vanpool	25
Transit	18
Non-Motorized	0

3.3 SR 520 Corridor Trips

About 5.3 percent of the PM Peak vehicle trips to and from Redmond Ridge cross the SR 520 bridge. As shown in Table 3-3, both a higher percentage and a higher number of vehicle trips entering the Redmond Ridge use the bridge, although trips leaving the study area contribute a higher total number of vehicles (i.e. over 3,300) to the bridge traffic. At 1,349, Redmond Ridge trips comprise 3.3 percent of total bridge traffic during the PM peak period.

Table 3-3. Study Area Vehicle Trips Related to SR 520 Corridor

	From the Study Area	To the Study Area	Total Trips
PM Peak Trips	10,744	14,927	25,671
Study Area Trips Crossing SR 520 Bridge	540	809	1,349
Percent of Case Study Trips Crossing SR 520 Bridge	5.0%	5.4%	5.3%

3.4 Average Vehicle Occupancy for Commute trips

The average vehicle occupancy for vehicle trips is shown in Table 3-4.

Table 3-4. Average Number of People per Vehicle

	Average Number of People
Drive Alone	1.00
Carpool	2.08
Vanpool	8.76

3.5 Historical CTR Mode Shares by Year

There are no CTR employers in Redmond Ridge, so no historical mode share information is available.

4.0 History with TDM and Land Use Strategies

There are no CTR employers in Redmond Ridge, so no historical mode share information is available. However, the developer of the Trilogy/Redmond Ridge development has a formal agreement with the County to institute a Transportation Demand Management Program. Details regarding the program are listed below:

1. Distribute site-appropriate transit and rideshare information to new tenants/residents and annually to all tenants/residents. (Distribution many be incorporated into a community newsletter or other medium that will be distributed throughout the development.)
2. Distribute site-appropriate transit and ridesharing information to purchasers of new homes.
3. Display site-appropriate transit and ridesharing information in prominent public locations.
4. Design and implement a parking management program, which may include, among other elements, preferential parking for high occupancy vehicles, combining the retail/commercial and business park areas of the Northridge development.
5. Provide a free one-month bus pass to new employees and residents who request them. The one-month free bus passes will be available at the time of hiring or occupancy.
6. Design and implement a Transportation Demand Management program for the business park that sets forth actions for ridesharing, flextime, walking, bicycling, telecommuting, marketing, and other activities to reduce peak hour travel by single-occupant vehicles (SOV). The program may include financial subsidies for non-SOV travel consistent with program for other business parks in comparable market areas of King County. The program will be developed and funding through the business park owners' association in coordination with King County. The initial program will be developed prior to the first certificate of occupancy for the business park. The program will be reviewed and updated as the business park is built out.
7. Design and implement or purchase publicly available guaranteed ride home program for business park users.
8. Implementation of other measures likely to reduce drive alone trips associates with the Northridge development.

This program has been in development since 1997 and has gone through a number of revisions. Most recently, the developers of Redmond Ridge put together the Second Annual Update to their Transit Plan, which discussed the activities of the shuttle that the development has agreed to provide.